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ABSTRACT

In 1982 California eliminated 250,000 "medically indigent adults" (MIAs) from the Medi-Cal program and transferred responsibility for their care to the counties, along with about 70% of what the state would have spent on their care had they remained in the Medi-Cal program. There is far greater variability among the counties in benefits, eligibility standards, and procedures than Medi-Cal recipients experience. A historically-based method was developed to assess the extent to which counties have met their responsibilities to MIAs and other medically indigent persons. After appropriate adjustments, the volume of health services used by this population before the transfer was compared to the volume of services provided by the county to the same population at a later point in time. This method was applied to assess the MIA transfer in Los Angeles and Orange Counties. The most striking finding from the study was the difficulty of assessing county performance of mandated responsibilities to the medically indigent. It was concluded that county health services need to improve their data systems. It is apparent even from the analysis of limited data that the transfer of MIAs from Medi-Cal to county responsibility has reduced the access of at least some low-income persons. While many MIAs received care from the two counties, as a group they did not receive the volumes of care they had received under Medi-Cal. (NB)

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ASSESSING INDIGENT HEALTH CARE NEEDS AND USE OF COUNTY HEALTH SERVICES

E. Richard Brown
Michael R. Cousineau

California Policy Seminar
Research Report

CALIFORNIA POLICY SEMINAR

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ASSESSING INDIGENT HEALTH CARE NEEDS AND USE OF COUNTY HEALTH SERVICES

E. Richard Brown
Michael R. Cousineau

California Policy Seminar
Research Report

E. Richard Brown
Associate Professor
School of Public Health
University of California, Los Angeles

Michael R. Cousineau
Doctoral Candidate, School of Public Health
Executive Director
Los Angeles Homeless Health Care Project

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EXECUTIVE SUMMARY

In 1982, as part of a major reform and cutback in State health care programs, California eliminated 250,000 "medically indigent adults" (MIAs) from the Medi-Cal program. The State transferred responsibility for their care to the counties, along with about 70 percent of what the State would have spent on their care had they remained in the Medi-Cal program.

MIAs in different counties face very different conditions when they need care. Because the counties decide what services to offer and set financial eligibility standards, there is far greater variability among the counties in benefits, eligibility standards, and procedures than Medi-Cal recipients experience.

These changes related to the MIA transfer raise public policy questions concerning how well the counties have implemented their responsibilities and how the MIAs have fared in county indigent care programs. First, a large number of indigent persons must rely on county programs when they need medical care. It is therefore important to them and their well being to know how well their access to care has been preserved under the MIA transfer. Second, the State mandated the counties to meet the needs of MIAs in particular and indigents in general and provides them with State funds, albeit not as much as the counties believe they need. The State therefore has a stake in knowing how well the counties have fulfilled the mandate and spent the State's tax dollars. Finally, it is valuable to compare counties' performances to assess the effectiveness of different models of delivering care. The State and the counties may find such information helpful in recommending cost-effective methods for counties to meet their indigent health care responsibilities.

The authors developed an historically-based method to assess the extent to which counties have met their responsibilities to MIAs and other medically indigent persons. This method takes the volume of health services used by this population before the transfer as the baseline and compares it to the volume of services provided by the county to the same population at a later point in time. By making appropriate adjustments in the baseline data, to take account of program and population changes, the baseline figures can be used validly as an "expected" volume of services which can be compared to actual, or "observed," volume of services. The authors discuss the strengths and limitations of this and other methods, and apply the method to assess the MIA transfer in Los Angeles and Orange Counties.

In Los Angeles County, we used two measures of access to inpatient care: the number of discharges and the number of inpatient days. The total observed discharges from county hospitals were about as great as expected, reaching 99% of the expected level in FY 1982-83 and 98% of the expected volume in FY 1983-84. However, use of inpatient services by Medi-Cal patients was greater than expected in both years following the MIA transfer, while use by MIAs and other indigent patients was less than expected in both years. Discharges of Medi-Cal patients were 19% greater than expected in FY 1982-83 and 28% greater than expected in FY 1983-84. Discharges of patients with other third-party coverage (Medicare or private insurance) were 4% greater than expected in FY 1982-83 and 12% greater in FY 1983-84. Discharges of patients without any third-party coverage--that is, MIAs and other medically indigent patients who are the main concern of this study--were 19% less than expected in FY 1982-83 and 22% less in FY 1983-84.

The total volume of inpatient days provided in FY 1983-84 was 11% less than expected, while for Medi-Cal patients it was 25% greater than expected, for other third-party patients, 1% less than expected, and for non-third-party patients (MIAs and other indigents) it was 38% less than expected. The authors discuss the reasons why discharges are a better measure of access than inpatient days. Outpatient data were not available from Los Angeles County.

In Orange County, we used only inpatient days because discharge data are not available. The number of inpatient days provided to medically indigent adults and paid for by the county Indigent Medical Services Program reached 85% of the expected level (that is, 15% below the expected level) in FY 1983-84 and 84% in FY 1984-85. The volume of outpatient visits by medically indigent adults that were paid for by the county program reached only 22% of the expected volume (that is, 78% below expected) in FY 1983-84 and 27% in FY 1984-85.

The lower than expected volumes of hospital discharges in Los Angeles and outpatient visits in Orange County suggest that indigent patients in each county may have serious problems obtaining access to needed medical care. These findings are substantiated by evidence from other studies.

PREFACE

This paper reports the results and conclusions of a project designed to develop a methodology to assess the extent to which counties fulfilled their State mandates to meet the health care needs of medically indigent persons. Although we entered into the study with what we thought was seasoned understanding of the limitations of county health services information systems, the constraints proved more frustrating than anticipated and limited our ability to fulfill the goals of the project. However, our experience was very educational. We were able to use our experience and knowledge gained from the study to assist a State-funded project, conducted by the Western Consortium for the Health Professions, that assessed the adequacy of county health care information systems and recommended how the State might help the counties improve their data systems. In addition, in the course of our study, we brought to the attention of Orange County officials "major flaws" in their reporting system. Our experience has also made us more aware of the difficult circumstances under which county data managers and analysts labor to provide and understand these data.

We would like to acknowledge with sincere thanks the assistance of Frank Binch and Dr. Eleanor Parsons of the Los Angeles County Department of Health Services, and Dr. Marianne Maxwell and Janice Robinson of the Orange County Health Care Agency. We also thank Dr. Peter Abbott and Dr. Howard Waitzkin for their helpful comments on a draft of this report. We are also grateful to the California Policy Seminar which funded the project. We appreciated the support of all concerned, but the findings, conclusions, and any errors in this report are the responsibility of the authors.

INTRODUCTION

In 1982, as part of a major reform and cutback in State health care programs, California eliminated 250,000 "medically indigent adults" (MIAs) from the Medi-Cal program. MIAs were adults who could not pay the costs of their medical care but were not otherwise eligible for Medi-Cal.[1] Until 1971, such people were considered the responsibility of the counties under the State Welfare and Institutions Code Section 17000. However, the 1971 Medi-Cal Reform Act added a substantial portion of them as Medi-Cal beneficiaries, a generous State policy since they were not, like other Medi-Cal recipients, eligible for federal matching funds.

In 1982, faced with a possible $2 billion deficit in the State General Fund, the Legislature eliminated nearly all MIAs from the Medi-Cal program and transferred responsibility for their care back to the counties, along with about 70 percent of what the State would have spent on their care had they remained in the Medi-Cal program.[2] Although the State would transfer some $261.5 million to the counties for the second half of fiscal year 1982-83 (when the transfer would become effective), it still expected to save $110 million compared to expected MIA expenditures under Medi-Cal. The MIA transfer was only part of the 1982 Medi-Cal legislation--including Assembly Bills (AB) 799 and 3480 and Senate Bill (SB) 2012--which included reforms and cutbacks that were expected to save the State some $367 million in the first fiscal year and significantly more in future years.

Who Were, and Are, the MIAs?

The MIAs were a group of Medi-Cal beneficiaries who were not linked to any State or Federal public assistance aid category. Their eligibility for Medi-Cal was determined by their medical indigency. In general, MIAs were able-bodied single adults and married couples between the ages of 21 and 65 whose medical bills exceeded their ability to pay. They included the working poor and many county general relief recipients.

In 1983, most of these patients lost their eligibility for Medi-Cal, and responsibility for their care was transferred to the counties. However, three groups of people remained Medi-Cal MIAs after the transfer: pregnant women without dependent children, patients in long term care facilities, and those who appealed their termination from Medi-Cal and remained eligible pending the outcome of their appeals (this last group was called "aid paid pending," or APP; most of them eventually lost their appeals). Together, these patients represented less than 10% of the 1982 monthly eligible counts of MIAs.

County MIAs Defined. The group of patients who were MIAs at the time of the transfer are not necessarily the same group of people who would have been MIAs today.

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1 Persons are eligible for Medi-Cal if they are in families with dependent children or are adults who are blind, disabled, or over 65 years of age and if they are sufficiently poor to receive public assistance cash grants. Persons who meet the "categorical" requirements but whose incomes are above the eligibility limit for cash assistance may qualify for the Medi-Cal "medially needy" program; under this program Medi-Cal pays for care after the beneficiary has paid out-of-pocket a specified amount of money each month for medical care.

2 This 70 percent funding by the State has fluctuated, depending upon the generosity of the Legislature and the Governor, and is somewhat less than 70 percent of what Medi-Cal would have spent on the MIAs in fiscal year 1986-87, totaling $835.2 million.

Former MIAs may no longer have needed medical financial assistance in 1983 and beyond, while new patients not eligible in 1982 might have become medically indigent in 1983 or in subsequent years. The legislation took account of this by requiring the counties to adopt eligibility standards for their county indigent medical care programs to assure that future indigent patients could become eligible for county subsidy programs. Therefore, when discussing the MIA population for whom a county became responsible in 1983, we will mean the population group in each county consisting of single adults and non-pregnant couples not linked to categorical welfare programs who are at risk for medical indigency, rather than the particular group of individuals who lost Medi-Cal eligibility in 1982.

County Variability

MIAs in different counties face very different conditions when they need care. Although the availability of Medi-Cal providers varies among the counties, the Medi-Cal program offers uniform benefits, eligibility standards, and procedures. Under the terms of the MIA transfer, counties decide what services to offer and set financial eligibility standards. Originally, these income and resource criteria could not be more restrictive than prevailing Medi-Cal standards, but these statutory State requirements have now expired. Counties can also establish financial liability requirements, thus requiring patients to pay some of the costs of their care, as long as these charges do not deny eligible patients medically necessary services. The legislation also permits small counties (those with populations under 300,000) to contract back to the State to cover MIA medical care.

In the absence of statewide standards, the MIA program proved to be as varied as the counties themselves. First, of the 43 small counties, 34 contracted back to the State's County Medical Services Program (CMSP) which provided a scaled down form of Medi-Cal to each county's eligible indigent persons. The remaining 9 small counties, together with the 15 larger counties, administered their own independent MIA programs. (Currently, 30 of the small counties contract with the State and 13 administer their own MIA programs.)

Second, independent counties varied in the types of facilities made available to MIAs. Los Angeles County, like many other large and medium counties, provides care only in county hospitals and clinics, except for emergency care for which it will reimburse private hospitals. San Diego and Orange Counties, which have no county hospitals or county medical clinics, contract all MIA care (and other indigent health care) to UC medical schools, private hospitals and clinics, and physicians. Alameda County uses its county hospitals and clinics and also contracts with a consortium of community clinics. Many other counties also use some combination of county and contract services.

Third, most independent counties, including Los Angeles, do not distinguish between their MIA and other indigent medical care responsibilities (under Welfare and Institutions Code Section 17000 and funded, in part, by the State's County Health Services Fund established by Assembly Bill [AB] 8). Counties, like Orange and San Diego, that contract for services with private providers tend to maintain separate MIA and other indigent care programs.

Finally, the substantial discretion given to counties to determine benefits or services as well as eligibility and the share of costs imposed on patients, created still more variation in county programs. Some counties covered virtually all care that had been previously available to MIAs under the Medi-Cal program, while others provided only those services that are deemed essential to prevent death or significant permanent

disability. Some counties provided generous ability-to-pay (ATP) plans and procedures, while others created very restrictive ATP eligibility standards, procedures and charges.

The county variability has resulted in extreme differences in access. Santa Clara treats all former MIAs and other indigents at its county facilities, but maintains an open door policy, treating everyone in need and worrying about the bills later. San Francisco also treats all MIAs and other indigents at its county inpatient and outpatient facility, but it rarely even bills indigent patients for services. Orange County contracted with 30 hospitals and some private physicians for its separate MIA program, but it made eligibility for county reimbursement of providers dependent on patients getting sick, going to a hospital, getting initially screened by the hospital, completing an application to the County Department of Public Social Services, and being further screened by the County. Some counties provide such barriers to care for MIAs and other indigents that some of their residents seek care in neighboring counties, imposing financial burdens on the receiving county.

Assessing County Performance

The transfer has been in effect for four years, a sufficiently long period for counties and MIAs to get over the transitional problems normally associated with such a major change. It is time to take stock, to assess how well the change has worked. Specifically, we might ask: how well have the counties implemented their responsibilities? and how have the MIAs fared under the transfer?

It is important to answer these questions for three reasons. First, a large number of indigent persons must rely on county programs when they need medical care. It is therefore important to them and their well being to know how well their access to care has been preserved under the MIA transfer. Second, the State mandated the counties to meet the needs of MIAs in particular and indigents in general and provides them with State funds, albeit not as much as the counties believe they need. The State therefore has a stake in knowing how well the counties have fulfilled the mandate and spent the State's tax dollars. Finally, it is valuable to compare counties' performances to assess the effectiveness of different systems and models of delivering care. The State and the counties may find such information helpful in recommending cost-effective methods for counties to meet their indigent health care responsibilities.

Nevertheless, it is difficult to assess county performance and even more difficult to compare counties' effectiveness. The State has not yet adopted any statewide standards for counties to use in collecting and reporting health services data. Again, in the absence of statewide standards, the counties collect and report data in almost as many ways as there are counties. Furthermore, the variability in county programs makes it difficult to compare results in one county with those of another.

Despite the methodological and substantive difficulties, this project was intended to develop methods to permit some analysis of need, services actually provided to meet that need, and the relative extent to which each county met existing needs. Specifically, the objectives of the project were to develop valid, useful and practical methods:

(1) to estimate the indigent population's health care needs in each county;

(2) to estimate the volume of county health services used by indigent patients; and

(3) to assess the extent to which indigent health care needs have been met by county health services and comparing the relative effectiveness of each county in meeting those needs.

METHODS

Each of the three objectives involves a distinct set of steps or procedures in analyzing data. After identifying who the MIAs are and what groups are included in a given county's program (i.e., whether the county combines the former MIA group with other indigent medical responsibilities or keeps them separate), it is necessary to identify their health care needs.

Ideally, we would have assessed actual needs by conducting a survey of MIAs both before and following the transfer, obtaining clinically relevant information and perhaps performing clinical exams as well as personal interviews. We could then have determined their health status, their sources of medical care, their patterns of utilization and their unmet medical needs. Comparing data collected before and after the MIA transfer would enable researchers, policy makers, beneficiaries and the public to assess accurately the effects of the MIA transfer on access to care, as well as on health status. Unfortunately, the resources for such an extensive study were not available.[3]

An alternative population-based method would have employed 1980 Census data, updated by State Department of Finance population estimates, together with population-based indicators of poverty, unemployment, public assistance and general relief eligibility, Medi-Cal eligibility, and estimates of the numbers of undocumented immigrants and homeless persons. Although this method has much to recommend it, it suffers from inadequate "small area" data to estimate population groups at risk of medical indigency in specific counties. For example, estimates of the percentage of the population who are uninsured would have to be taken from multi-state survey data which would probably be substantially in error if applied to an urban area like Los Angeles. Furthermore, the existence of a large undocumented population--variously estimated at between 0.5 million and 1.5 million persons--creates serious problems in trying to estimate the number of persons who have private health insurance and the number who are eligible for Medicare, Medi-Cal, county ATP plans, and public assistance programs. This method also requires substantial financial resources, and--unless based on interviews with a substantial probability sample of county residents--would provide only rough estimates of county health needs.

A third alternative, which we used in this study, estimates health care needs of the MIA population based on their historical use of health services. This method permits us to compare the volume of services used by this population (and paid for by Medi-Cal before the transfer) with the volume of services they used in the county indigent medical services (IMS) program after the transfer. The need for services used by this population group under the Medi-Cal program is expected to remain about the same per eligible person after the transfer to county responsibility. This figure is adjusted to control for changes in rates of utilization by persons remaining in the Medi-Cal program, which are

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3 One research group did conduct such a study with a small group of MIAs at the UCLA Medical Center; see N. Lurie, N.B. Ward, M.F. Shapiro, and R.H. Brook, "Termination from Medi-Cal--Does It Affect Health?" New England Journal of Medicine 311:480-484, 1984, and N. Lurie, N.B. Ward, M.F. Shapiro, C. Gallego, R. Vaghaiwalla, R.H. Brook, "Termination of Medi-Cal Benefits: A Follow-up Study One Year Later," New England Journal of Medicine 314:1266-1268, 1986.

primarily the result of changes in definitions of medical necessity and treatment authorization requirements imposed on doctors and patients by the State.

This adjusted Medi-Cal rate of use is the "expected" rate at which this population will use county-funded services after the transfer. The expected rate is then compared to the services that actually are used in the county program, what we call the "observed" utilization. We then can calculate a ratio of observed to expected utilization which immediately indicates whether the county is providing more or less treatment to the MIA/indigent population after the transfer than this population group would be expected to receive had they remained eligible for Medi-Cal. Figure 1 represents this conceptual relationship. The computational method which is based on this conceptual formula is described in this section in sufficient detail for the general reader, and it is described in more detail in the Appendix.

Figure 1. General Formula for Ratio of Observed to Expected Utilization in County MIA Indigent Medical Care Programs

$$\frac{U_o}{U_e} = \frac{IMS_s + I_s}{I_b + MIA_b}$$

Where,

U_o = Observed (i.e., actual) utilization

U_e = Expected utilization

I_s = County-subsidized outpatient units of service (visits or inpatient days or discharges) under Welfare & Institutions Section 17000 responsibilities in study year [if separate from IMS program]

I_b = County-subsidized outpatient units of service (visits or inpatient days or discharges) under Welfare & Institutions Section 17000 responsibilities in baseline year

IMS_s = County-subsidized outpatient units of service (visits or inpatient days or discharges) under County Indigent Medical Services program

MIA_b = Medi-Cal MIA outpatient units of service (visits or inpatient days or discharges) for County in baseline year, adjusted

The expected utilization of services is developed from State Medi-Cal paid claims data, specifically the number of MIA Medi-Cal inpatient days or discharges or outpatient

visits in calendar year 1982.[4] Calculating this expected volume of use required adjusting the crude historical Medi-Cal MIA data to eliminate from the estimate the volume of services used by groups that did not lose Medi-Cal eligibility, and by adjusting for gross population changes. Inpatient use was estimated by combining paid claims for acute medical, surgical, intensive care unit (ICU) and coronary care unit (CCU) services.[5] We used the number of monthly inpatient users to represent the number of inpatient discharges per month.[6] Outpatient utilization was estimated by combining hospital outpatient and emergency room visits and physician office visits. Both outpatient and inpatient use volumes were then reduced by appropriate percentages of 1982 MIA eligibles who remained Medi-Cal beneficiaries in 1983.[7] These figures were then adjusted for increases in the county's total population from the baseline year to the study year.

The **observed** (or actual) utilization of services under the county MIA programs is derived from county data. We obtained information about each county's MIA program--eligibility for free or reduced-fee care, types of services provided under the program, and the types and numbers of county and community providers included in the program. We then obtained service data from the county, broken down by patient's source of payment and covering the utilization of inpatient and ambulatory care at all providers covered by the county's MIA program. We were dependent on the data that were collected and made available by each county, and had to adjust our method accordingly. These data were then analyzed to combine service data for indigent and MIA patients and separately sum the data for patients in other payment categories.

Limitations of the Method

There are five limitations to the method used in this analysis. First, the data used to derive the expected volume of use reflect the historical usage of services by MIAs, rather than measuring present needs for medical care. However, they are a useful surrogate for direct measures because they reflect the previous demand for care under a system that, with its many imperfections, provides a floor below which access to care should not fall. Because it is historically based, analyses using this method have a short life span because of changes in the composition of the population and/or the health-related environment. Although we have adjusted the expected volumes of services for changes in county population, we have applied this historical analysis for only two fiscal years beyond the fiscal year in which the transfer occurred.

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4 The data are from the California Center for Health Statistics' Medi-Cal Month of Payment (MOP) Reports for 1982. We included three provider categories: physician office services, county hospital inpatient and outpatient services, and community hospital inpatient and outpatient services.

5 We thus eliminated from the expected volume those claims paid for care to obstetrics patients, long term care patients and patients in psychiatric facilities, all of whom remained in the Medi-Cal program.

6 We assumed that most inpatient users were admitted and discharged within a 30-day period and only once within that period.

7 The inpatient and outpatient totals were reduced by different percentages because of the adjustments already made to inpatient data. Dental, psychiatric and other practitioner visits were not included in computing the expected volume in this analysis because the counties generally count them under different programs to the extent that they are provided at all. Other adjustments that were made to expected use data were specific to each county and will be described later in this section.

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Second, the expected volumes of use were calculated using data published in reports from the Medi-Cal paid claims data file. This file represents claims paid in a given month, rather than services actually provided in that month. This limitation is discussed more fully in the Appendix, but we do not believe it significantly affects our findings.

Third, the expected volumes of care have not been adjusted to take account of utilization controls imposed by other changes in the Medi-Cal program, such as the more stringent definition of medical necessity, increased use of treatment authorization requests (or TARs) and increased share of cost. The State's Center for Health Statistics was not able to provide us with data from which such an adjustment factor could be computed. Thus, the expected volume of services does not reflect the level of service that would likely be used by the group of MIAs had they remained in the current Medi-Cal program.

Fourth, the observed volume of services reflects utilization of only those services provided or paid for by the county. It does not include charity or uncompensated care in private or community facilities or services paid for out-of-pocket by MIAs or other indigents. Based on other studies, we know that some MIAs at least initially received some care from private physicians for which they paid the full cost at the time of service or in installment payments while others obtained reduced-fee or free care from community clinics. The Medi-Cal data from which expected volumes of service were computed also do not reflect other services which MIAs paid for or received as charity, although MIAs under the Medi-Cal program almost certainly used considerably less out-of-pocket and charity care than after their transfer.

Although this limitation prohibits us from taking account of all care received by former MIAs, our concern is whether the counties are adequately replacing the care previously paid for by the State Medi-Cal program. If former MIAs have to pay for necessary care they used to receive without charge, then they are spending more of their meager financial resources on medical care, an unintended consequence of the MIA transfer. And if a significant portion of their care is provided as uncompensated care by hospitals and community providers, then the resulting financial burden represents an unanticipated shifting of financial responsibility to the private and community sector, and many such providers may further restrict access to care for the uninsured.

Finally, notwithstanding our attempts to standardize measures of county performance, it remains difficult to compare counties' success and inadequacies in providing care to MIAs. Since there is no standardized collection and reporting of utilization data by MIAs in California counties, differences among the counties may reflect idiosyncrasies in their data collection and reporting, as well as differences in their eligibility guidelines and the ways they deliver medical care to MIAs.

For example, Orange County reports utilization data for users who are determined eligible for the IMS program. The data system does not include users who are not referred for eligibility determination, who are referred but fail to apply, or who apply but are denied eligibility. Los Angeles County identifies most users by source of payment, but within the County DHS there are differences in data collection and reporting: hospital data are derived from an automated billing system whereas data from the Comprehensive Ambulatory Care Centers are tabulated by hand; hospitals and comprehensive health centers report source-of-payment data but the County's other health centers do not. In addition, aggregated utilization data are not consistent among the various L.A. DHS reports: ambulatory care revenue summaries, institutional reports, clinic control reports, and workload statistics all report different volumes of services provided.

Because of the differences in the two counties' systems of indigent care and in the way they collect and report data, the method for deriving the expected volume of utilization and for compiling observed utilization data had to be adapted to each county. The specific methods used in each county will be described briefly in the Findings section and more fully in the Appendix.

FINDINGS

Los Angeles County

Los Angeles County's MIA program was combined with its other indigent care responsibilities, and services were restricted to County Department of Health Services facilities.[8] Therefore, to estimate the expected number of inpatient admissions and days and outpatient visits to County DHS facilities following the transfer of MIAs from Medi-Cal to county responsibility, we based the estimate on historical patterns of utilization of County facilities.

These expected utilization figures were based on volumes of use in the baseline year, FY 1981-82, plus the utilization by MIAs of private physicians and hospitals in that year. These figures were adjusted to account for those MIAs who remained in the Medi-Cal program (e.g., pregnant women, long term care patients, and recipients classified as "aid paid pending" their appeals) and for differences in the average of length of stay between private and County hospitals. We computed the total expected volume of use for all patients and separate expected volumes of use for three source-of-payment categories: Medi-Cal, other third party (Medicare and private insurance), and non-third party (self-pay and sliding fee-scale). We used these three categories to permit an assessment of the extent to which changes in total volume of services reflect contributions by Medi-Cal patients (that is, all Medi-Cal patients other than MIAs who lost their eligibility), those with some other public or private coverage, and those who are medically indigent (that is, former MIAs and former county indigent patients who together comprise the present medically indigent population). This method permits us to compute the effects on the total volume of services provided by the County of two important changes: (1) MIAs who had been served by the County as Medi-Cal patients and now would be "non-third party" patients, and (2) MIAs who had used private or community providers as Medi-Cal patients and now would be "non-third party" users of County facilities.

We then analyzed the observed volumes of County services used by all patients and by these same source-of-payment groups in FY 1982-83 and beyond. Finally, we compared the observed volumes of use with the expected volumes of use by computing a ratio which reflects the degree to which the observed use equals, exceeds, or is smaller than the expected utilization.

However, because of severe limitations in the way that L.A. County collects and processes its data on outpatient care, we could apply this method only to inpatient utilization; reliable data on outpatient services by source of payment were simply not available. We estimated the change in volume of inpatient services attributable to MIAs by comparing the observed utilization by County indigent patients (i.e., users of County DHS facilities without third-party coverage) with the expected utilization anticipated

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8 Except, as noted earlier, for emergency care at most private hospitals which were reimbursed under contracts with the County.

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following the MIA transfer (i.e., the changes in total volume of usage and changes in each of the three source-of-payment categories attributable to the MIA transfer).

Tables 1 and 2 display the findings for changes in discharges and inpatient days at L.A. County DHS hospitals between FY 1981-82 and FY 1983-84.[9] Total discharges increased in both fiscal years, consistent with the expected increase for each year. Total discharges increased from 129,986 in FY 1981-82 to 143,253 in FY 1982-83 (an increase of 10.2%) and 150,359 in FY 1983-84 (a one-year increase of 5.0%). (The ratio of .99 in the first fiscal year indicates that total observed, or actual, discharges were just 1% less than the volume that was expected as a result of the MIA transfer, and the ratio of .98 in the second fiscal year was just 2% less than expected.)

Examining the changes within each source-of-payment category, from FY 1981-82 to FY 1982-83 (Table 1), we find that, as one would anticipate, discharges of Medi-Cal patients declined with the elimination of MIAs from Medi-Cal (-7.3%) while discharges of other third-party patients increased slightly (5.7%) and discharges of non-third-party patients (essentially, the medically indigent group) increased dramatically (45.7%). However, these absolute and percentage changes, while in the expected direction, are less dramatic when compared to the expected magnitude of change. Medi-Cal discharges decreased less than expected, other third-party discharges increased more than expected, but non-third-party patients increased substantially less than expected. Thus, while the observed-to-expected ratio for total discharges was .99 (that is, almost exactly what was expected), the ratio for Medi-Cal discharges was 1.19 (19% above the expected volume), for other third-party discharges, 1.04 (4% above expected), and for non-third-party discharges, .81 (19% below expected).

Changes in Medi-Cal and non-third-party discharges during the next fiscal year were similarly not as large as expected (Table 1). Between FY 1982-83 and FY 1983-84, Medi-Cal discharges declined by 8.4% while non-third-party discharges increased by 19.8%, but these amounted to observed-to-expected ratios of 1.28 (28% above expected) for Medi-Cal and .78 (22% below expected) for non-third-party. Thus, changes in hospital discharges indicate that former MIAs and other indigent patients used about one-fifth fewer hospital services in the two years following the transfer than they did before it.

Total inpatient days of hospitalization also increased between FY 1981-82 and FY 1983-84, but not as much as expected (Table 2). As with discharges, Medi-Cal inpatient days decreased in each fiscal year but were 20% greater than expected in FY 1982-83 and 25% greater than expected in FY 1983-84. Other third-party days were near the expected level in both fiscal years. But non-third-party days, while increasing substantially in both fiscal years, stood at 35% below expected volumes in FY 1982-83 and 38% below the expected level in FY 1983-84. Thus, compared to discharges, changes in inpatient days indicate a bigger gap between the volume of services that former MIAs and other indigent patients would have been expected to use and the volumes they actually used.

In the discussion we will focus on changes in the volume of discharges, rather than on inpatient days, for two reasons. First, discharges of indigent patients increased faster than inpatient days in this period in part because average length of stay declined in County hospitals, as it did in other hospitals throughout California and the rest of the nation. Furthermore, discharges (or admissions) are a valid measure of access to hospital care, while the volume of inpatient days is influenced by average length of stay which is related to quality of care, an issue we do not address in this study.

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9 These tables provide summary data. Tables with complete analyses are found in the Appendix in Tables A1-A4.

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Table 1. Expected and Observed Number of Discharges from Los Angeles County Department of Health Services Hospitals, by Source of Payment, FY 1981-82 to 1983-84

	Medi-Cal	Other Third-Party	Non-Third-Party	Total
FY 1981-82				
Observed discharges	72,921	18,783	38,282	129,986
FY 1982-83				
Observed discharges	67,621	19,850	55,782	143,253
Change from FY 1981-82	-5,300	+1,067	+17,500	+13,267
Percent change from FY 1981-82	-7.3%	+5.7%	+45.7%	+10.2%
Expected discharges	56,675	19,065	69,239	144,979
Observed/expected ratio	**1.19**	**1.04**	**0.81**	**0.99**
FY 1983-84				
Observed discharges	61,955	21,568	66,836	150,359
Change from FY 1981-82	-10,966	+2,785	+28,554	+20,373
Percent change from FY 1981-82	-15.0%	+14.8%	+74.6%	+15.7%
Change from FY 1982-83	-5,666	+1,718	+11,054	+7,106
Percent change from FY 1982-83	-8.4%	+8.7%	+19.8%	+5.0%
Expected discharges	48,570	19,290	85,432	153,292
Observed/expected ratio	**1.28**	**1.12**	**0.78**	**0.98**

Note: Detailed data, including computational steps and adjustments to expected and observed values, may be found in Tables A1 and A2 in the Appendix.

Sources: Los Angeles County Department of Health Services, Inpatient Statistical Reports for FY 1981-82, FY 1982-83, and FY 1983-84; California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; and California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983.

Table 2. Expected and Observed Number of Inpatient Days in Los Angeles County Department of Health Services Facilities, by Source of Payment, FY 1981-82 to 1983-84

	Medi-Cal	Other Third-Party	Non-Third-Party	Total
FY 1981-82				
Observed inpatient days	530,615	200,422	193,268	924,305
FY 1982-83				
Observed inpatient days	481,931	199,686	283,041	964,658
Change from FY 1981-82	-48,684	-736	+89,773	+40,353
Percent change from FY 1981-82	-9.17%	-0.4%	+46.5%	+4.4%
Expected total days	402,729	203,428	434,202	1,040,359
Observed/expected ratio	**1.20**	**0.98**	**0.65**	**0.93**
FY 1983-84				
Observed inpatient days	423,760	205,190	349,496	978,446
Change from FY 1981-82	-106,855	+4,768	+156,228	+54,141
Percent change from FY 1981-82	-20.1%	+2.4%	+80.8%	+5.9%
Change from FY 1982-83	-58,171	+5,504	+66,455	+13,788
Percent change from FY 1982-83	-12.1%	+2.7%	+23.5%	+1.4%
Expected total days	338,764	205,533	559,759	1,104,357
Observed/expected ratio	**1.25**	**0.99**	**0.62**	**0.89**

Note: Detailed data, including computational steps and adjustments to expected and observed values, may be found in Tables A3 and A4 in the Appendix.

Sources: Los Angeles County Department of Health Services, Inpatient Statistical Reports for FY 1981-82, FY 1982-83, and FY 1983-84; California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; and California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983.

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Orange County

Orange County has had no County-owned hospital or medical clinics since selling its County hospital to the University of California, Irvine medical school in 1976. Consequently, in 1982 all MIAs were treated in the University medical center, in private hospitals, in licensed clinics, or by private practitioners. Thus, estimates of the expected volumes of inpatient and outpatient use were based simply on the 1982 average monthly Medi-Cal MIA discharges, inpatient days, and outpatient visits for Orange County providers. However, Orange County reports inpatient days and outpatient visits for its Indigent Medical Services (IMS) program, but it does not report admissions or discharges. Therefore, we were limited to comparing expected and observed inpatient days, clearly a less desirable measure of access to inpatient care (as noted earlier in the discussion of Los Angeles County).

Because of differences between the two counties' programs, the computation of expected and observed volumes of use were much simpler in Orange County than in Los Angeles. As in Los Angeles, the expected utilization volumes of inpatient and outpatient services were based on corresponding volumes of use by MIAs in the Medi-Cal program during baseline year, 1982. However, because all services were provided in non-County settings under both the Medi-Cal MIA and County IMS programs, no adjustments were needed to account for transfers from private providers to County services. Furthermore, because we are concerned with only those services for which the County is financially responsible--that is, those billed to the IMS program--we included in our analysis only those services reported by the IMS program, rather than services delivered by community providers under other source-of-payment categories.

However, Orange County's data for the first six months of its IMS program were unusable. As discovered in the course of our study and by the County's own admission, the County's data system produced data that were unreliable for January-June 1983.[10] Therefore, we have deleted this period from our analysis and focused on the subsequent two fiscal years.

The number of days of hospitalization paid for by the IMS program fell short of the expected number in both FY 1983-84 and FY 1984-85 (please see Table 3). In the first fiscal year, the ratio was .85 (15% below expected) and in the second, .86 (16% below expected). Moreover, as we noted earlier, days are not as valid a measure of access to inpatient care as discharges, which are unavailable for Orange County. Because of declining average lengths of stay, Orange County's ratios of expected-to-observed discharges for IMS patients are probably somewhat closer to 1.0 than are the ratios for inpatient days.

The number of outpatient visits paid for by the IMS program was dramatically different than the expected number (please see Table 4). In FY 1983-84, the observed total of 32,112 was only 22% of the expected number of 149,224 (or 78% below the expected level), while in FY 1984-85, it reached 40,690, or 27% of the expected volume (or

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10 Indigent Medical Services Program Management and Summary Statistics, Fiscal Years 1983-84 and 1984-85, Orange County Health Care Agency, July 1986, p. 8, and correspondence, Marianne E. Maxwell, Director, Special Projects, to E. Richard Brown, January 14, 1987. It should be noted that Orange County officials claimed that each new iteration of data from the IMS management information system was inaccurate through June 1985. However, since these data were used in program planning and to pay providers and since no other data through June 1985 have been made available, we have used the data provided by the County for FYs 1983-84 and 1984-85.

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Table 3. Expected and Observed Number of Inpatient Days in Orange County Indigent Medical Services Program, FY 1983-84 and FY 1984-85

	FY 1983-84	FY 1984-85
1982 Medi-Cal MIA days	32,082	32,082
Expected days, adjusted for MIAs who remain in Medi-Cal	31,581	32,419
Observed days paid by IMS	26,709	27,369
Observed / Expected days	.85	.84

Note: Detailed data, including computational steps and adjustments to expected and observed values, may be found in Table A5 in the Appendix.

Sources: California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983; and Orange County Indigent Medical Services, Indigent Medical Services Program Management and Summary Statistics, July 1986, p. 30.

Table 4. Expected and Observed Number of Outpatient Visits in Orange County Indigent Medical Services Program, FY 1983-84 and FY 1984-85

	FY 1983-84	FY 1984-85
1982 Medi-Cal MIA visits	157,162	157,162
Expected visits, adjusted for MIAs who remain in Medi-Cal	149,229	153,187
Observed visits paid by IMS	32,112	40,690
Observed / Expected visits	.22	.27

Note: Detailed data, including computational steps and adjustments to expected and observed values, may be found in Table A6 in the Appendix.

Sources: California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983; and Orange County Indigent Medical Services, Indigent Medical Services Program Management and Summary Statistics, July 1986, p. 30.

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73% below expected). That is, the Orange County IMS program provided only about one-quarter of outpatient visits the medically indigent patients would have been expected to receive under the Medi-Cal program.

DISCUSSION

The most striking finding from this study is the difficulty of assessing county performance of mandated responsibilities to the medically indigent--given the dismal state of county health services data systems. The problems with Los Angeles and Orange counties' data systems are not exceptional among counties, but they make evaluation and comparative studies of performance exceedingly difficult. The problems that we encountered include the counties' failure to collect important types of data, differences between counties and even within counties in the ways they collect apparently similar data, the inability of county program and data analysis experts to explain or clearly define important data elements, and so on.

With such problems our findings are obviously subject to error, the magnitude of which cannot be estimated. We have included in this report only those analyses that are based on reasonably complete and verified data. Nevertheless, it would be precarious to draw conclusions too firmly from these data. Indeed, we suggest that any conclusions should be based on large differences and should be viewed as suggestive, requiring further verification by other methods before being firmly accepted. In the remainder of this report, we discuss our findings that meet these stringent criteria.

Los Angeles County

In Los Angeles, we have inpatient days and discharge data, but we do not have usable outpatient data for the large system of County health services. The one finding that meets the criteria discussed above--that is, large differences and some indirect confirmation from other sources--is that inpatient care of medically indigent persons did not rise to expected levels in either FY 1982-83 or 1983-84. The number of discharges of the medically indigent reached only about four-fifths of the expected level, suggesting that barriers may discourage access to inpatient care, as other studies have demonstrated that access to ambulatory care has been restricted.[11] These barriers may include financial ones resulting from inadequate implementation of the County's ability-to-pay program, as well as barriers due to the more centralized and limited geographic access to the six County hospitals compared to previous availability of numerous and widely distributed public and private providers under the Medi-Cal program. These are similar to the barriers experienced by patients seeking ambulatory care from Los Angeles County facilities.

Although we were not able to analyze outpatient data for all County health facilities in the way we analyzed inpatient care, we did obtain monthly data for the three major comprehensive ambulatory care clinics covering the first fiscal year. These data confirmed that during the eight months of FY 1982-83 in which the County was responsible for the MIAs as well as its previous load of other indigent patients, non-MIA Medi-Cal visits increased rather than decreased, and non-third-party visits increased in

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11 See Lurie et al, "Termination from Medi-Cal--Does It Affect Health?" New England Journal of Medicine, and Lurie et al, "Termination of Medi-Cal Benefits: A Follow-up Study One Year Later," New England Journal of Medicine, and M.R. Cousineau, E.R. Brown, and J.E. Freedman, "Access to Free Care for Indigent Patients in Los Angeles: County Policy Implementation and Barriers to Care," Journal of Ambulatory Care Management, 10:78-89, 1987.

number but not as a proportion of all visits to these health centers. Total non-third-party visits (including ATP/MIA, prepayment, and self-pay) increased from 11,298 (81.9% of all visits) in November 1982, to 12,703 (78.5% of all visits) in January 1983, to 14,543 (and 78.4% of all visits) in June 1983. In this same period, Medi-Cal visits increased from 1,284 (9.3% of all visits) in November, to 1,982 (12.2% of all visits) in January, and 1,902 (10.3% of all visits) in June.[12] Although these three large health centers may not have been representative of all County facilities or of later periods for which comparable data are not available, these data do support the tentative conclusion that ambulatory care for the medically indigent has not kept pace with expected volumes of service.

While total discharges did reach expected levels, this volume was helped along by service to larger than expected numbers of Medi-Cal patients. The County should not be criticized for serving more Medi-Cal patients than one would expect. This excess volume may result from more intensive efforts by the County to process patients into other Medi-Cal eligibility categories (e.g., disabled or AFDC) than when the MIA category was formerly available, and/or from Medi-Cal inpatients' being concentrated in County hospitals as a result of Medi-Cal's selective contracting for hospital care that took effect in the first half of 1983. If the larger number of Medi-Cal inpatients is due to the hospital contracting program, the County should investigate the possibility of patient dumping by other hospitals with Medi-Cal contracts.

Orange County

The Orange County findings lead to a related, but somewhat different, conclusion. In Orange County, we have the benefit of both outpatient and inpatient data, although we do not have inpatient discharges. While the observed number of inpatient days seems reasonably close to the expected level, especially given the decline in average lengths of stay, the number of outpatient visits paid for by the IMS program reached only about one-fourth of its expected level. This finding confirms the results of an Orange County study that found significant access barriers to necessary medical care for medically indigent patients.[13] This confirmation from other evidence suggests that medically indigent persons in Orange County may face a serious access problem when they try to obtain ambulatory care.

One explanation for inpatient care coming closer than ambulatory care to its expected level is the restriction placed on services provided by the program. The County limited the scope of covered services to those deemed medically necessary and defined these as "necessary to protect life, to prevent significant disability or to prevent serious deterioration of health."[14] Only services that meet this definition are reimbursable under the IMS program. However, since eligibility generally is determined after a user is referred to the County Department of Social Services (DSS), persons who are eligible on the basis of income or financial resources may not be referred, or if referred may be denied eligibility, because of the medical problem that they present.

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12 Computed from unpublished data provided by the Los Angeles County Department of Health Services.

13 L. Rucker, B. Akin, G. Heidi, F.A. Hubbell, and H. Waitzkin, "The Medically Indigent of Orange County: A Study of Patient Who Cannot Obtain Medical Care," Orange County Task Force on Indigent Health Care, October 10, 1986 (Xerox).

14 Orange County Indigent Medical Services Agreement.

Probably more important than the definition of medical necessity in explaining the difference between the observed-to-expected ratios of inpatient and outpatient care is Orange County's eligibility process for the IMS program. Unlike Los Angeles, which provides care only in its six County hospitals and more numerous clinics and health centers, Orange County provides care through contracts with 34 hospitals and clinics and many doctors offices dispersed throughout the county. However, in order to become eligible for the IMS program, patients must visit a contract patient care facility for an illness or injury. The provider must screen the patient for third-party coverage, and refer those with no coverage and no ability to pay to the County DSS eligibility worker for IMS eligibility determination. Then, the person must be screened by the eligibility worker or (if none is at the hospital) appear at the DSS office, complete an application, and provide substantial documentation. (Beginning in July 1986, applicants need only to declare the authenticity of their information.) Once approved, a person remains eligible for three months unless he or she submits a "status report" which automatically extends eligibility for an additional three months. (In July 1986, the eligibility period was extended to six months.) The County could not provide data on the number of status reports submitted, but the County's data analyst reported that the number is very small. Thus, the most likely point at which a person would be evaluated for eligibility is upon presentation at a contract hospital, which then has an incentive to refer uninsured patients for IMS determination to avoid either refusing treatment to the patient or providing treatment without compensation.

However, in FY 1983-84, only 42.2% of the 24,875 patients referred by providers for DSS eligibility screening actually applied. Two-thirds of the applicants were approved, or a little more than one-fourth of those referred to DSS. About the same proportions applied and were approved in FY 1984-85. The resulting monthly average of slightly more than 4,000 IMS eligibles in each year was a little more than one-third of what would have expected, given the monthly average of 11,919 eligible Medi-Cal MIAs in the last quarter of 1982.[15] Thus, fewer persons are eligible for IMS-funded care than would be expected as a result of transferring patients from Medi-Cal to county responsibility.

County officials have suggested that many patients for whom the County does not have to pay actually do receive care.[16] Although the County does not provide utilization data on patients who are referred but do not apply for IMS, or who apply but are denied eligibility, it is obvious that this phenomenon could reduce access. In the short run, some indigent patients will receive care as providers treat uninsured indigent patients without any assurance of payment. But providers who do not get paid for care they provide to three-fourths of their uninsured patients are likely to begin to deny care to the uninsured, rather than risk financial losses from uncompensated care. That appears to be what has happened in Orange County.[17]

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15 The expected number is actually 11,037 after adjusting for those MIAs who remained eligible in 1983. The eligibility findings have been computed from data Indigent Medical Services Program Management and Summary Statistics, Fiscal Years 1983-84 and 1984-85, Orange County Health Care Agency, July 1986, pp. 15-16, and from data on cumulative certified CID eligibles, October 1982 to March 1984, provided by the California Center for Health Statistics.

16 Interview with Dr. Marianne E. Maxwell, Director of Special Projects, Orange County Health Care Agency.

17 Since this study was completed Orange County officials have provided new summary data indicating substantial improvements in inpatient and outpatient volumes of care for FY 1985-86. These data are based on a new management information system operated by a new fiscal intermediary. Although County officials have expressed

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Conclusions

Two general conclusions emerge from this study. First, it is apparent even from the analysis of limited data available for the study that the transfer of medically indigent adults from Medi-Cal to county responsibility has reduced the access of at least some low-income persons. While many medically indigent patients received care from the two counties, as a group such persons did not receive the volumes of care they had received under the Medi-Cal program. Given the many utilization controls that were in effect under Medi-Cal before the transfer, it is unlikely that, as a group, they received an excessive amount of care when covered by Medi-Cal. Rather, our findings and those of other studies indicate that medically indigent persons have experienced reduced access compared to Medi-Cal and less care than would be medically indicated.

The second general conclusion is that county health services need to improve their data systems. Although these systems may meet internal management needs, they do not permit evaluation of county fulfillment of State mandates. The State transferred MIAs to county responsibility and has provided about 70% of the expected costs of serving the medically indigent population, although at present the State substantially underfunds this county support. Although this limited funding imposes severe constraints on counties' abilities to meet this population's needs, it does not absolve the counties of the responsibility. The new Medically Indigent Care Reporting System proposed by the State and adopted by some counties is a step toward improving county reporting systems. But the $1 million provided by the State is inadequate to bring the counties' information and data management systems to a uniform and technically acceptable level. More funding from the State is needed along with a commitment from the counties. Services can be provided without data, but state and local governments can be held accountable to meet the health needs of their communities only if adequate data are available by which to assess their efforts.

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confidence in these data, we have not been able to examine the data on which the County's summary is based. Without such an examination, we cannot verify whether the units of measurement or data collection methods are comparable to the old ones and therefore cannot make any judgments about the County's claims of an improvement. Correspondence from Herbert Rosenzweig, Director of Medical Services, Orange County Health Care Agency, to E. Richard Brown, February 18, 1987, and from Joan R. Allen, IMS Data Manager, Orange County Health Care Agency, to E. Richard Brown, March 31, 1987.

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APPENDIX

In this study, we compared the volume of services actually used by the MIA population in the period following the transfer (which we call the "observed" utilization volume) with a projection of the volume of services that one might have expected this group to use had they remained in the Medi-Cal program (which we call the "expected" utilization volume). This historically-based method provides one way of determining how well a county is meeting its obligation to provide health services to the MIA population.

To make these comparisons, we first estimated the amount of medical care MIAs were **expected** to use as county patients. Then we identified the volume of services actually used by this group (the **observed** utilization), following their transfer to county responsibility. Finally, we compared the **observed** to **expected** volumes in a ratio which indicates whether the volume of care the county actually provided to this population group was **equal** to the volume of care they would have been likely to receive under the Medi-Cal program (observed/expected = 1.0), whether the observed volume was **greater** than the expected volume (observed/expected > 1.0), or **less** than the expected volume (observed/expected < 1.0).

Expected Volume of Services

The expected volume of care--inpatient days and discharges and outpatient visits--is derived from the Medi-Cal paid claims data for 1982, which was taken as the baseline year because it was the last year in which the MIAs were eligible for Medi-Cal. The 1982 month-of-payment (MOP) reports for MIAs provide a summary of claims that were **paid** by the Medi-Cal program on behalf of MIAs in that year, rather than all services that actually occurred in that period.[18] For example, hospital inpatient days and outpatient visits reported in the January 1982 MOP report represent service claims that were paid in that month, but which occurred in December 1981 or earlier. Data for 1982 include, therefore, claims paid for services provided in 1982, as well as some services provided in the latter part of 1981 but paid in 1982. Similarly, they exclude some services provided in 1982 but not paid until 1983.

Thus, we use monthly averages of paid claims derived from the 1982 summaries for each county as an estimate of the average number of users and units of service that occurred in any given month. The volumes of inpatient days and outpatient visits for MIAs were taken directly from the MOP reports. The number of monthly inpatient users was employed as a surrogate for discharges, assuming that most inpatient users were admitted and discharged within a 30-day period.

The annual expected volume was computed by multiplying the Medi-Cal monthly volume by the number of months the County was responsible for the MIAs. In Los Angeles, the County assumed responsibility for the MIAs in November 1982; therefore, the expected volume for FY 1982-83 was 8 times the monthly average for Medi-Cal MIAs during the baseline year. During the next fiscal year, the County had responsibility for the entire year; therefore, the expected volume for FY 1983-84 was 12 times the monthly expected volume. In Orange County, the monthly average was multiplied by 6 to account

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18 Month-of-payment (MOP) data, rather than month-of-service (MOS) data, were used because MOS data are available only on tape, greatly increasing the expense of analysis, while the MOP data are available in print-outs and reports from the State. Similarly, baseline Medi-Cal MIA data for each county are based on average monthly figures for calendar year 1982 because this is the only form in which they are available without paying the substantial costs of special computer runs.

for the half fiscal year for which the County was responsible for MIAs in FY 1982-83 (Orange County assumed responsibility in January 1983, as did most counties) and by 12 for the next two fiscal years (although the observed data from the County for first six months were unusable and therefore do not appear in our analysis).

These utilization data were then adjusted to take account of the MIA subgroups that remained in the Medi-Cal program. Following the transfer, pregnant women, patients in nursing homes (long term care, or LTC), and "aid paid pending" (APP; that is, pending outcomes of appeals) remained in the Medi-Cal program as MIAs. For inpatient care, the categorization of service types in MOP reports allowed obstetrics and LTC patients to be excluded in calculating the expected volume of days and discharges. Thus, to adjust the expected volume of inpatient care to account for MIAs who did not lose their Medi-Cal eligibility, we had to account only for APP patients. There were 3,255 APP patients in Los Angeles County in 1983, representing 4.5% of the number of eligibles in the fourth quarter of 1982. The number of expected inpatient days and discharges in Los Angeles was therefore adjusted by reducing the FY 1981-82 total of inpatient days by 4.5%. In Orange County, there were 477 APP eligibles in 1983, representing 4.0% of the number of eligibles in the fourth quarter of 1982. The expected inpatient volume was therefore reduced from the 1982 levels by that percentage.

A slightly different adjustment was required for computing the expected volume of outpatient visits. The Medi-Cal MOP reports do not disaggregate outpatient visits by service types. Because we cannot exclude visits by LTC patients and obstetrics patients, we compared by total number of monthly eligibles in the post transfer period with the monthly eligibles in the pretransfer period. In Los Angeles, 6.7% of the 1982 Medi-Cal MIAs remained Medi-Cal eligible after the transfer during FY 1982-83. Therefore, the expected volume of outpatient visits would be reduced by 6.7% to account for those MIAs who did not lose their Medi-Cal coverage. In Orange County, 7.4% of the MIAs in 1982 remained eligible after the transfer, so we reduced the expected volume accordingly.

An adjustment was also made to the expected volume of each service type to account for changes in population in each county during each time period. Because of the great differences in programs and in data collected and reported in Los Angeles and Orange Counties, different methods were developed to complete the estimates of expected volumes of care and to compute actual (or observed) volumes of services in the two counties.

Los Angeles County

Computing Expected Inpatient Utilization Volume. Nearly 40% of the MIAs used county facilities prior to the transfer. Thus, to derive the expected inpatient utilization volume for non-third-party patients, we accounted for (1) MIAs who had used County facilities as Medi-Cal patients and who would continue to use County facilities as non-third-party paying patients (transfers between source-of-payment groups) and (2) MIAs who had previously used private sector services but must now rely on the county DHS facilities (the patient load redirected to County services).

Because Los Angeles combined its MIA program with its other indigent health care responsibilities and does not distinguish MIAs from other indigents in its data systems, we identified a category which includes all patients who are essentially "medically indigent": patients without any third-party coverage whom the County bills and identifies as "self-pay;" patients who have applied for and been declared eligible for the ability-to-pay (ATP) plan; and other related categories of patients who do not have any third-party coverage. In computing observed volumes of care, we separated this medically indigent

group's use of services from the volume of care used by Medi-Cal patients and by those with other third-party coverage (i.e., Medicare or private insurance), both before and after the MIA transfer.

Los Angeles County uses separate counting procedures for patient visits to hospitals, comprehensive ambulatory care centers, and health clinics. These procedures are sufficiently different from one another that the data cannot be combined to derive an aggregated expected outpatient volume by source of payment, as we have done for inpatient care. Because outpatient utilization data are unavailable by source of payment in a form that permits meaningful comparison with prior Medi-Cal MIA data, we present below only our computations of expected and observed inpatient volumes of care.

Comparing Expected and Observed Number of Inpatient Discharges. Tables A1 and A2 display the steps involved in comparing expected with observed inpatient discharges. There were 129,986 discharges during the baseline year, FY 1981-82, in Los Angeles County DHS facilities, including 72,921 discharges of Medi-Cal patients, 18,783 for patients with other third-party coverage, and 38,282 discharges of patients with no third-party coverage (see line 1.0). The Medi-Cal discharges included an estimated 18,311 MIA discharges (line 2.0), of which an estimated 17,084 were for MIAs who lost their Medi-Cal eligibility and were therefore expected to turn to the County hospitals for future inpatient needs (line 2.1). These continuing County hospital users represented a source-of-payment transfer (that is, a shift in patients from Medi-Cal to non-third-party categories). In addition, there were 13,456 Medi-Cal MIA discharges from private facilities in the baseline year (line 3.0). After adjusting for MIAs who remained in Medi-Cal and for the difference in average lengths of stay between County and private hospitals, an estimated 12,850 discharges were expected to be redirected to County hospitals (line 3.1), thereby increasing the County inpatient load (that is, increasing the number of inpatient discharges due to new patients entering the system).

After adjusting for MIAs who remain in Medi-Cal and those who would enter the County system from the private sector as a result of losing their Medi-Cal coverage, as well as for changes in population (which increased 1.5% from July 1, 1982 to July 1, 1983, and 2.7% between July 1, 1982 and July 1, 1984), Medi-Cal discharges from County facilities were expected to fall to 56,675 in FY 1982-83 (line 5.1), that is, 22.3% less than in FY 1981-82. At the same time, non-third-party discharges were expected to jump to 69,239 in FY 1982-83 (line 5.1), an increase of 80.9% from FY 1981-82. Other third-party (Medicare and private health insurance) discharges were expected to rise to 19,850 due to population increase. Total discharges were expected to increase to more than 143,253 in FY 1982-83.

The County provided a total of 143,253 discharges in FY 1982-83 (line 6.0); that is 13,267 (or 10.2%) more than it did in FY 1981-82 (lines 6.2 and 6.3). Broken down by source of payment, in FY 1982-83 the County provided 5,300 fewer Medi-Cal discharges (7.3% fewer) and 17,500 more non-third-party discharges (45.7% more) than in FY 1981-82.

Thus, the County provided 99% of the total expected number of discharges in FY 1982-83 (ratio of observed/expected = .99), including 119% of expected Medi-Cal discharges and 81% of expected non-third-party discharges (line 7.0). It provided about the expected number of other third-party discharges. In FY 1983-84, the County provided only 78% of the expected number of non-third-party discharges, while the number of Medi-Cal discharges increased to 128% of the expected (Table A2, line 7.0).

Comparing Expected and Observed Number of Inpatient Days. Tables A3 and A4 display the steps used to estimate the expected and observed numbers of inpatient days

from Los Angeles County DHS hospitals. Because the steps are the same as for discharges, we will abbreviate the description in this section. The expected number of inpatient days, based on FY 1981-82 with the same adjustments that were made for discharges, were 402,729 for Medi-Cal patients, 203,428 for other third-party (Medicare and private health insurance) patients, and 434,202 for non-third party patients (line 5.1). The last group includes, of course, 133,838 inpatient days for MIAs who had used County hospitals in FY 1981-82 but had lost their Medi-Cal coverage and 105,423 inpatient days for MIAs who had used private hospitals. These groups totaled an expected 1,040,359 inpatient days (including an adjustment for population change), 12.6% more than in FY 1981-82.

In FY 1982-83, County DHS hospitals actually provided a total of 964,658 inpatient days (line 6.0), 7% less than the total expected (line 7.0). The number of Medi-Cal inpatient days was 20% higher than expected, while the number of non-third-party inpatient days was 35% lower than expected. The total number of inpatient days served by County hospitals in FY 1983-84 rose still higher, but the ratio of observed to expected inpatient days did not improve, due in part to the increase in population. In FY 1983-84, Medi-Cal inpatient days reached 125% of their expected level, and non-third-party inpatient days fell to 62% of their expected number (Table A4, line 7.0).

Orange County

Orange County reports two types of data for its Indigent Medical Services (IMS) program: eligibility and "encounters."

Eligibility. A person becomes eligible for the Orange County IMS program by first becoming a user of a contract provider's services, being referred by the provider to the County IMS program for eligibility screening, actually making an application and providing documentation to the IMS program through a Department of Social Services eligibility worker, and being reviewed by the eligibility worker and found eligible. A patient who is found eligible for the IMS program remains eligible for three months and may be simply recertified by the County every three months up to three times (thus, being required to complete a new application at least once a year). (In July 1986, the eligibility period was extended to six months.)

The County reports quarterly and annually the number of people referred by providers each month to the County IMS program, the number of people who submit applications, the number approved for eligibility, and the number who are continued from previous months as eligible patients. From these data we were able to derive the number of eligible patients in each month. We then calculated an average monthly count of IMS eligible patients for each year (the observed number of eligibles) which we compared to the adjusted number of monthly MIA eligibles in 1982 (the expected number of eligibles).

Units of Service. Orange County reports only units of service ("encounters") for which the IMS program pays contract providers, but the County does not report admissions or discharges. Encounters have been categorized in our study as **inpatient days** (the sum of their reported "inpatient trauma days" and "critical, telemetry, acute days") and **outpatient visits** (including "emergency room visits," "outpatient medical office visits," hospital outpatient visits, and consultations).

We excluded psychiatric inpatient days from our analysis for several reasons. Psychiatric patients become eligible through a different process than do medical patients. The County Department of Social Services, which administers the mental health program, collects and reports data on eligibles and utilization using different procedures and units of measure than the IMS program. Thus, mental health data are not comparable to data

from the IMS medical program. Furthermore, both the Medi-Cal program and the County IMS program report psychiatric service data separately from other services, making it easy to exclude them from the computations of both the expected and observed services.

Inpatient Care. In 1982, Medi-Cal MIAs were hospitalized for 32,082 days in Orange County (please see Table A5, line 1.0). The total includes medical, surgical, ICU, and CCU inpatient days only; psychiatric, obstetric and long term care services have been excluded. To estimate the number of inpatient days **expected** in the Orange County IMS program in each of the next two fiscal years, we adjusted the 1982 MIA Medi-Cal days to account for services to APP patients. There were an average of 477 APP patients each month in 1983, 4.0% of the number of eligibles in the fourth quarter of 1982. Thus, the number of expected patient days was calculated by reducing the number of 1982 MIA Medi-Cal inpatient days by 4% (line 2.0). After adjusting for MIAs who did not lose Medi-Cal, we then adjusted for changes in population, which increased 2.5% between July 1, 1982 and July 1, 1984, and 5.3% between July 1, 1982 and July 1, 1985. Thus, 31,581 inpatient days were expected for MIAs in the Orange County IMS program in FY 1983-84 and 32,419 in FY 1984-85 (line 2.1).

We found that the IMS program paid for 26,709 inpatient days in FY 1983-84 and 27,369 days in FY 1984-85 (line 3.0). These totals include medical, surgical, critical care, telemetry, and trauma care, the services indentified by the Orange County IMS staff as most accurately reflecting patient days. The ratios of observed to expected discharges were .85 (15% below expected) in FY 1983-84 and .84 (16% below expected) in FY 1984-85 (line 4.0).

Outpatient Visits. To derive expected volumes of outpatient care, we combined the 1982 monthly average number of Medi-Cal MIA visits to physicians' offices, hospital outpatient departments, and emergency rooms. The total of 157,162 visits for 1982 shown in Table A6 excludes outpatient psychiatric visits, but MIA outpatient visits for obstetric services are not distinguished from other service types in Medi-Cal MOP reports (line 1.0). Therefore, we reduced the 1982 total number of visits by 7.4% to account for outpatient care received by pregnant women, long-term care patients, and APP patients. After adjusting for MIAs who remained in the Medi-Cal program and for population changes, 149,229 outpatient visits were expected in FY 1983-84 and 153,187 in FY 1984-85 (line 2.0).

The Orange County IMS program actually paid for 32,112 outpatient visits in FY 1983-84 and 40,690 visits in FY 1984-85 (line 3.0). These included physician office visits, hospital outpatient department and emergency room visits, and consultations. The observed visits for FY 1983-84 were only 22% of those expected, while the number for FY 1984-85 were 27% of the number expected.

Table A1. Expected and Observed Number of Discharges from Los Angeles County Department of Health Services Hospitals, by Source of Payment, FY 1982-83

	Medi-Cal	Other Third-Party	Non-Third-Party	Total
1.0 FY 1981-82 discharges from County hospitals	**72,921**	**18,783**	**38,282**	**129,986**
1.1 Percent of total discharges	56.1%	14.5%	29.5%	100.0%
2.0 Estimated change in discharges due to MIA users of County hospitals losing Medi-Cal[a]	-18,311	0	+18,311	0
2.1 Expected change adjusted for MIAs who remain in Medi-Cal [2.0 adjusted][b]	-17,084	0	+17,084	0
3.0 Estimated change in discharges due to MIA users of private hospitals losing Medi-Cal	0	0	+13,456	+13,456
3.1 Expected change adjusted for MIAs who remain in Medi-Cal [3.0 adjusted][c]	0	0	+12,850	+12,850
4.0 Total expected adjusted change [2.1 + 3.1]	-17,084	0	+29,934	+12,850
5.0 Expected discharges [1.0 + 4.0]	55,837	18,783	68,216	142,836
5.1 Expected discharges, FY 1982-83 adjusted for population change [5.0 X 1.015]	**56,675**	**19,065**	**69,239**	**144,979**
6.0 Observed discharges, FY 1982-83	**67,621**	**19,850**	**55,782**	**143,253**
6.1 Percent of total discharges	47.2%	13.9%	38.9%	100.0%
6.2 Change from FY 1981-82 [6.0 - 1.0]	-5,300	+1,067	+17,500	+13,267
6.3 Percent change from FY 1981-82 [6.2 / 1.0]	-7.3%	+5.7%	+45.7%	+10.2%
7.0 Observed / Expected, FY 1982-83 [6.0 / 5.0]	**1.19**	**1.04**	**0.81**	**.99**

[a] Average monthly discharges for MIAs in Medi-Cal program multiplied by 8, the number of months the County had responsibility for MIAs during FY 1982-83.

[b] Because Medi-Cal does not disaggregate discharges from L.A. County DHS hospitals by service type, total MIA discharges were reduced by 6.7% to account for MIAs who remained in Medi-Cal after the transfer (i.e., APP, LTC and pregnant women); computed by dividing the number of average monthly Medi-Cal MIA eligibles in L.A. County in 1983 by the number of average monthly Medi-Cal MIA eligibles in 1982.

[c] Because Medi-Cal disaggregates discharges from private community hospitals by service type, MIA discharges were reduced by only 4.5%, the percent of MIAs who remained in Medi-Cal as APP after the transfer.

Note: Percentages may not add to 100.0 due to rounding.

Sources: Los Angeles County Department of Health Services, Inpatient Statistical Reports for FY 1981-82 and FY 1982-83; California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; and California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983.

Table A2. Expected and Observed Number of Discharges from Los Angeles County Department of Health Services Hospitals, by Source of Payment, FY 1983-84

	Medi-Cal	Other Third-Party	Non-Third-Party	Total
1.0 FY 1981-82 Discharges from County hospitals	**72,921**	**18,783**	**38,282**	**129,986**
1.1 Percent of total discharges	56.1%	14.5%	29.5%	100.0%
2.0 Estimated change in discharges due to MIA users of County hospitals losing Medi-Cal[a]	-27,468	0	+27,468	0
2.1 Expected change adjusted for MIAs who remain in Medi-Cal [2.0 adjusted][b]	-25,628	0	+25,628	0
3.0 Estimated change in discharges due to MIA users of private hospitals losing Medi-Cal	0	0	+20,184	+20,184
3.1 Expected change adjusted for MIAs who remain in Medi-Cal [3.0 adjusted][c]	0	0	+19,276	+19,276
4.0 Total expected adjusted change [2.1 + 3.1]	-25,628	0	+44,904	+19,276
5.0 Expected discharges, FY 1983-84 [1.0 + 4.0]	47,293	18,783	83,186	149,262
5.1 FY 1983-84 Expected discharges, adjusted for population change [5.0 X 1.027]	**48,570**	**19,290**	**85,432**	**153,292**
6.0 Observed discharges, FY 1983-84	**61,955**	**21,568**	**66,836**	**150,359**
6.1 Percent of total discharges	41.2%	14.3%	44.5%	100.0%
6.2 Change from FY 1981-82 [7.0 - 1.0]	-10,966	+2,785	+28,554	+20,373
6.3 Percent change from FY 1981-82 [7.4 / 1.0]	-15.0%	+14.8%	+74.6%	+15.7%
6.4 Change from FY 1982-83 [7.0 - 6.0]	-5,758	+1,708	+11,054	+7,004
6.5 Percent change from FY 1982-83 [7.2 / 6.0]	-8.5%	+8.6%	+19.8%	+4.9%
7.0 Observed / Expected, FY 1983-84 [6.0 / 5.0]	**1.28**	**1.12**	**0.78**	**.98**

a Average monthly discharges for MIAs in Medi-Cal program multiplied by 12, the number of months the County had responsibility for MIAs during FY 1982-83.

b Because Medi-Cal does not disaggregate discharges from L.A. County DHS hospitals by service type, total MIA discharges were reduced by 6.7% to account for MIAs who remained in Medi-Cal after the transfer (i.e., APP, LTC and pregnant women); computed by dividing the number of average monthly Medi-Cal MIA eligibles in L.A. County in 1983 by the number of average monthly Medi-Cal MIA eligibles in 1982.

c Because Medi-Cal disaggregates discharges from private community hospitals by service type, MIA discharges were reduced by only 4.5%, the percent of MIAs who remained in Medi-Cal as APP after the transfer.

Note: Percentages may not add to 100.0 due to rounding.

Sources: Los Angeles County Department of Health Services, Inpatient Statistical Reports for FY 1981-82 and FY 1983-84; California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; and California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983.

Table A3. Expected and Observed Number of Inpatient Days in Los Angeles County Department of Health Services Facilities, by Source of Payment, FY 1982-83

	Medi-Cal	Other Third-Party	Non-Third-Party	Total
1.0 FY 1981-82 Days in County hospitals	**530,615**	**200,422**	**193,268**	**924,305**
1.1 Percent of total days	57.4%	21.7%	20.9%	100.0%
2.0 Estimated change in days due to MIA users of County hospitals losing Medi-Cal[a]	-143,449	0	+143,449	0
2.1 Expected change adjusted for MIAs who remain in Medi-Cal [2.0 adjusted][b]	-133,838	0	+133,838	0
3.0 Estimated change in days due to MIA users of private hospitals losing Medi-Cal	0	0	+105,423	+105,423
3.1 Expected change adjusted for MIAs who remain in Medi-Cal [3.0 adjusted][c]	0	0	+100,679	+100,679
4.0 Total expected adjusted change [2.1 + 3.1]	-133,838	0	+234,517	+100,679
5.0 Expected total days, FY 1982-83 [1.0 + 4.0]	396,777	200,422	427,785	1,0' 4,984
5.1 FY 1982-83 Expected days, adjusted for population change [5.0 X 1.015]	**402,729**	**203,428**	**434,202**	**1,040,359**
6.0 Observed days, FY 1982-83	**481,931**	**199,686**	**283,041**	**964,658**
6.1 Percent of total days	50.0%	20.7%	29.3%	100.0%
6.2 Change from FY 1981-82 [6.0 - 1.0]	-48,684	-736	+89,773	+40,353
6.3 Percent change from FY 1981-82 [6.2 / 1.0]	-9.17%	-0.4%	+46.5%	+4.4%
7.0 Observed / Expected, FY 1982-83 [6.0 / 5.0]	**1.20**	**.98**	**0.65**	**0.93**

[a] Average monthly days for MIAs in Medi-Cal program multiplied by 8, the number of months the County had responsibility for MIAs during FY 1982-83.

[b] Because Medi-Cal does not disaggregate inpatient days in L.A. County DHS hospitals by service type, total MIA inpatient days were reduced by 6.7% to account for MIAs who remained in Medi-Cal after the transfer (i.e., APP, LTC and pregnant women); computed by dividing number of average monthly Medi-Cal MIA eligibles in L.A. County in 1983 by number of average monthly Medi-Cal MIA eligibles in 1982.

[c] Because Medi-Cal disaggregates inpatient days in private community hospitals by service type, MIA inpatient days were reduced by only 4.5%, the percent of MIAs who remained in Medi-Cal as APP after the transfer.

Sources: Los Angeles County Department of Health Services, Inpatient Statistical Reports for FY 1981-82 and FY 1982-83; California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; and California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983.

Table A4. Expected and Observed Number of Inpatient Days in Los Angeles County Department of Health Services Facilities, by Source of Payment, FY 1983-84

	Medi-Cal	Other Third-Party	Non-Third-Party	Total
1.0 FY 1981-82 Days in County hospitals	**530,615**	**200,422**	**193,268**	**924,305**
1.1 Percent of total days	57.4%	21.7%	20.9%	100.0%
2.0 Estimated change in days due to MIA users of County hospitals losing Medi-Cal[a]	-215,174	0	+215,174	0
2.1 Expected change adjusted for MIAs who remain in Medi-Cal [2.0 adjusted][b]	-200,757	0	+200,757	0
3.0 Estimated change in days due to MIA users of private hospitals losing Medi-Cal	0	0	+158,134	+158,134
3.1 Expected change adjusted for MIAs who remain in Medi-Cal [3.0 adjusted][c]	0	0	+151,018	+151,018
4.0 Total expected adjusted change [2.1 + 3.1]	-200,757	0	+351,775	+151,018
5.0 Expected total days, FY 1983-84 [1.0 + 4.0]	329,858	200,422	545,043	1,075,323
5.1 FY 1983-84 Expected days, adjusted for population change [5.0 X 1.027]	**338,764**	**205,833**	**559,759**	**1,104,357**
6.0 Observed days, FY 1983-84	**423,760**	**205,190**	**349,496**	**978,446**
6.1 Percent of total days	43.3%	21.0%	35.7%	100.0%
6.2 Change from FY 1981-82 [6.0 - 1.0]	-106,855	+4,768	+156,228	+54,141
6.3 Percent change from FY 1981-82 [6.2 / 1.0]	-20.1%	+2.4%	+80.8%	+5.9%
6.2 Change from FY 1982-83	-58,171	+5,504	+66,455	+13,788
6.3 Percent change from FY 1982-83	-12.1%	+2.7%	+23.5%	+1.4%
7.0 Observed / Expected, FY 1983-84 [7.0 / 5.0]	**1.25**	**.99**	**0.62**	**0.89**

a Average monthly days for MIAs in Medi-Cal program multiplied by 12, the number of months the County had responsibility for MIAs during FY 1982-83.

b Because Medi-Cal does not disaggregate inpatient days in L.A. County DHS hospitals by service type, total MIA inpatient days were reduced by 6.7% to account for MIAs who remained in Medi-Cal after the transfer (i.e., APP, LTC and pregnant women); computed by dividing number of average monthly Medi-Cal MIA eligibles in L.A. County in 1983 by number of average monthly Medi-Cal MIA eligibles in 1982.

c Because Medi-Cal disaggregates inpatient days in private community hospitals by service type, MIA inpatient days were reduced by only 4.5%, the percent of MIAs who remained in Medi-Cal as APP after the transfer.

Sources: Los Angeles County Department of Health Services, Inpatient Statistical Reports for FY 1981-82 and FY 1983-84; California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; and California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983.

Table A5. Expected and Observed Number of Inpatient Days in Orange County Indigent Medical Services Program, FY 1983-84 and FY 1984-85

	FY 1983-84	FY 1984-85
1.0 1982 Medi-Cal MIA days[a]		
1.1 Medical-surgical acute	28,079	28,079
1.2 ICU	2,839	2,839
1.3 CCU	1,164	1,164
1.4 Total	32,082	32,082
2.0 Expected days, adjusted for MIAs who remain in Medi-Cal[b]	30,799	30,799
2.1 Expected days, adjusted for population change [2.0 X [c]]	**31,581**	**32,419**
3.0 Observed days paid by IMS[d]		
3.1 Medical-surgical	20,575	20,895
3.2 Critical care	3,093	2,836
3.3 Telemetry	333	487
3.4 Trauma	2,708	3,151
3.5 Total days paid by IMS	**26,709**	**27,369**
4.0 Observed / Expected days	**.85**	**.84**

a Reported number of days include medical, surgical, ICU, and CCU only.

b Because Medi-Cal disaggregates inpatient days by service type, total MIA days were reduced by 4.0% to account only for MIAs who remained in Medi-Cal in 1983 as aid paid pending.

c Population adjustment factors are 1.025 for 1983-84 and 1.053 for 1984-85.

d Orange County IMS staff identified these categories of inpatient encounters as most accurately reflecting patient days.

Sources: California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983; and Orange County Indigent Medical Services, Indigent Medical Services Program Management and Summary Statistics, July 1986, p. 30.

Table A6. Expected and Observed Number of Outpatient Visits in Orange County Indigent Medical Services Program, FY 1983-84 and FY 1984-85

	FY 1983-84	FY 1984-85
1.0 1982 Medi-Cal MIA visits[a]		
1.1 Office visits	50,310	50,310
1.2 Home	39	39
1.3 Emergency room	266	266
1.4 Preventive	43	43
1.5 Other	4,279	4,279
1.6 Hospital outpatient	102,225	102,225
1.7 Total	157,162	157,162
2.0 Expected visits, adjusted for MIAs who remain in Medi-Cal[b]	145,532	145,532
2.1 Expected visits, adjusted for population change [2.0 X [c]]	149,229	153,187
3.0 Observed visits paid by IMS		
3.1 Outpatient E.R.	13,132	15,158
3.2 Physician E.R.	1,181	1,016
3.3 Outpatient non-surgical	12,294	15,042
3.4 Office medical	3,651	7,036
3.5 Consultation	1,864	2,438
3.6 Total visits paid by IMS	32,112	40,690
4.0 Observed / Expected visits	.22	.27

a Reported number of visits include those to physician offices, hospital outpatient departments, and emergency rooms.

b Because Medi-Cal does not disaggregate outpatient visits by service type, total MIA visits were reduced by 7.4% to account for MIAs who remained in Medi-Cal in 1983 (i.e., APP, LTC and pregnant women).

c Population adjustment factors are 1.025 for 1983-84 and 1.053 for 1984-85.

Sources: California Center for Health Statistics, 1982 annualized Medi-Cal Service and Expenditure Month-of-Payment Reports; California Center for Health Statistics, Cumulative Certified Eligibles, 1982 and 1983; and Orange County Indigent Medical Services, Indigent Medical Services Program Management and Summary Statistics, July 1986, p. 30.